

WHAT IS CLAIMED IS:

- 1 1. A character validation method comprising the steps of:
2 retrieving a data value from a character stream;
3 determining a validity of a character represented by said value in response to a
4 member of a data structure corresponding to said value wherein said validity is
5 determined in response to a logical combination of status values in said member of said
6 data structure.
- 1 2. The method of claim 1 further comprising the step of indexing into said data
2 structure using said data value, wherein said member of said data structure corresponding
3 to said data value is pointed to in response to said indexing step.
- 1 3. The method of claim 2 wherein said data structure comprises an array.
- 1 4. The method of claim 1 wherein, if the logical combination corresponds to a
2 logically "TRUE" value, said data value represents a valid character.
- 1 5. The method of claim 1 further comprising the step of, if each character in said
2 stream is valid, applying a predetermined set of syntactic rules to byte patterns comprising
3 said character stream.
- 1 6. The method of claim 1 further comprising the step of generating said data
2 structure.
- 1 7. The method of claim 5 wherein said character stream comprises characters in
2 accordance with a specification for an extensible markup language, and wherein said
3 status values are set in accordance with a set of valid characters defined in said
4 specification.

- 1 8. The method of claim 7 wherein the extensible markup language comprises XML
- 2 and wherein said syntatic rules include rules in accordance with XML.

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1 9. A data processing system comprising:
2 circuitry operable for retrieving a data value from a character stream;
3 determining a validity of a character represented by said value in response to a
4 member of a data structure corresponding to said value wherein said validity is
5 determined in response to a logical combination of status values in said member of said
6 data structure.

1 10. The system of claim 9 further comprising circuitry operable for indexing into said
2 data structure using said data value, wherein said member of said data structure
3 corresponding to said data value is pointed to in response to said indexing step.

1 11. The system of claim 10 wherein said data structure comprises an array.

1 12. The system of claim 9 wherein, if said logical combination corresponds to a
2 logically "TRUE" value, said data value represents a valid character.

1 13. The system of claim 9 further comprising circuitry operable for, if each character
2 in said stream is valid, applying a predetermined set of syntatic rules to byte patterns
3 comprising said character stream.

1 14. The system of claim 9 further comprising circuitry operable for generating said
2 data structure.

1 15. The system of claim 13 wherein said character stream comprises characters in
2 accordance with a specification for an extensible markup language, and wherein said
3 status values are set in accordance with a set of valid characters defined in said
4 specification.

1 16. The system of claim 15 wherein the extensible markup language comprises XML
2 and wherein said syntatic rules include rules in accordance XML.

1 17. A computer program product embodied in a machine-readable storage medium
2 including programming for validation, the programming comprising a set of instructions
3 for performing the steps of:

4 retrieving a data value from a character stream;
5 determining a validity of a character represented by said value in response to a
6 member of a data structure corresponding to said value wherein said validity is
7 determined in response to a logical combination of status values in said member of said
8 data structure.

1 18. The program product of claim 17 further comprising instructions for performing
2 step of indexing into said data structure using said data value, wherein said member of
3 said data structure corresponding to said data value is pointed to in response to said
4 indexing step.

1 19. The program product of claim 18 wherein said data structure comprises an array.

1 20. The program product of claim 17 wherein, if the logical combination corresponds
2 to a logically "TRUE" value, said data value represents a valid character.

1 21. The program product of claim 17 further comprising instructions for performing
2 the step of, if each character in said stream is valid, applying a predetermined set of
3 syntatic rules to byte patterns comprising said character stream.

1 22. The program product of claim 17 further comprising the step of generating said
2 data structure.

1 23. The program product of claim 21 wherein said character stream comprises
2 characters in accordance with a specification for an extensible markup language, and
3 wherein said status values are set in accordance with a set of valid characters defined in
4 said specification.

- 1 24. The program product of claim 23 wherein the extensible markup language
2 comprises XML and wherein said syntatic rules include rules in accordance with XML.

- 1 25. A character validation method comprising the steps of:
2 retrieving a data value from a character stream;
3 determining a validity of a character represented by said value in response to a
4 member of a data structure corresponding to said value wherein said validity is
5 determined in response to a logical combination of status values in said member of said
6 data structure, wherein said character stream comprises characters in accordance with a
7 specification for an extensible markup language, and wherein said status values are set in
8 accordance with a set of valid characters defined in said specification; and
9 if each character in said stream is valid, applying a predetermined set of syntactic
10 rules to byte patterns comprising said character stream in accordance with said extensible
11 markup language.
- 1 26. The method of claim 25 wherein said character stream comprises a message
2 packaged in accordance with a predetermined information exchange protocol.